



## Contact-less communication system

### ABSTRACT

5 Apparatus for providing a contact-less, bi-directional communication link between a power  
supplying module (PS) and a power consuming module (PC) having two links, one (L1) used  
for power, clock, and upstream data transfer, the other (L2) used as downstream data link. PS  
contains a power supply circuit and PC contains a simple rectifier. The non-rectified output of  
L1 is used to provide the clock to PC. Amplitude variations of the signal driving L1 are  
10 detected and used in PC (upstream data link). Data is transmitted from PC to PS by tapping  
the non-rectified signal from the output of L1, passing it through a switch, which alternates its  
polarity before being fed into L2. The phase relationship between signals at the input of L1  
and the output of L2 provides the means for the downstream data transfer.